PCB CLEANUP PLAN
Former Rail Spur Property
Bay Road and Broadway
Redwood City, California

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Prepared for

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SIGNATURE PAGE

All information, conclusions and recommendations contained in this report have been prepared under the supervision of the undersigned professional(s).

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1.0 INTRODUCTION

This *PCB Cleanup Plan* ("*Cleanup Plan*") has been prepared by West Environmental Services & Technology, Inc., (WEST) for the former railroad spur property (RSP) located adjacent to 2201 Bay Road and extends approximately 600 feet northeast of the intersection of Bay Road and Woodside Road in Redwood City, California ("the Site;" Figure 1-1). This *Cleanup Plan* supersedes the May 2014 *PCB Cleanup Plan* approved by the United States Environmental Protection Agency (USEPA) on July 22, 2014, which only addressed polychlorinated biphenyls (PCBs) in soil within the unpaved portion of the RSP (USEPA, 2014b). The scope-of-work in this *Cleanup Plan* addresses soil containing PCBs within the boundaries of both the unpaved and paved portions of the RSP owned by 899 Broadway Associates (Figure 1-2). This *Cleanup Plan* was prepared pursuant to: 40 Code of Federal Regulations (CFR) Section 761.61(c); the USEPA May 31, 2013 directive; and the conditions included in the July 22, 2014 USEPA approval.

1.1 BACKGROUND

Union Pacific Railroad operated the rail spur adjacent to 2201 Bay Road in Redwood City, California. Historical operations conducted at 2201 Bay Road included electrical transformer manufacturing and aboveground storage of PCB-laden dielectric fluids. The PCB-laden dielectric fluids were delivered to 2201 Bay Road by railcar staged on the rail spur and transferred via an underground pipeline to aboveground storage tanks. Since 1999, investigations conducted at 2201 Bay Road revealed PCBs in surface soil. Further details regarding the investigations conducted at 2201 Bay Road were provided in AMEC Geomatrix's February 2011 *Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California* (AMEC, 2011). In 2012, soil was excavated from 2201 Bay Road adjacent to the Site up to 8-feet below ground surface.

The Site is comprised of an approximately 600-foot long unpaved and paved corridor that curves to the northeast from the intersection of Bay Road and Woodside Road. The unpaved portion of the Site is fenced and extends from the intersection of Bay Road and Woodside Road

approximately 340-feet to the southwest corner of the R&B Pipe Company property located at 939 Broadway in Redwood City, California. The width of the unpaved portion of the Site varies from approximately 20 feet near Bay Road to approximately 45 feet adjacent to the R&B Pipe Company property line.

The paved portion of the RSP extends approximately 260 feet to the east from the unpaved portion of the rail spur following the property line between R&B Pipe Company property and the former Tyco property at 2201 Bay Road. The paved portion of the RSP is approximately 20 feet wide and is currently used for pipe and plumbing supply storage by R&B Pipe Company.

Activities conducted on the Site have included soil sampling (unpaved and paved portions); implementation of interim measures to stabilize surface soil (unpaved portion); and wipe and bulk samples collected from stored materials on the R&B Pipe Company property. In 2010, 40 discrete soil samples were collected at 0.3 feet and 1 foot below ground surface from borings W-1 to W-20, advanced within the unpaved portion of the Site. The 40 discrete soil samples were composited into 20 two-way composite samples for laboratory analysis and revealed PCBs up to 3,520 milligrams per kilogram (mg/kg) .

In May 2013, Site observations indicated that pipe from the R&B Pipe Company was stored on the unpaved portion of the Site and that equipment used to move the pipe had disturbed surface soil. In June 2013, pursuant to the May 31, 2013 USEPA directive, the unpaved portion of the Site was re-stabilized with a polymer dust suppressant. In addition, wipe and bulk samples were collected from the adjacent properties or on materials previously stored on the Site to characterize whether dust-containing PCBs was present.

Laboratory analysis of the wipe samples did not reveal PCBs above the laboratory-reporting limit of 1 microgram per wipe over a 100 square centimeter area (µg/wipe). In addition, bulk samples collected from the materials previously stored on the Site did not reveal PCBs above the laboratory reporting limits of 0.100 mg/kg to 0.160 mg/kg. One surface sample collected from a

sand fill material on the adjacent R&B Company property contained PCBs at 0.579 mg/kg, which is below the USEPA commercial Regional Screening Level (RSL) of 0.74 mg/kg.

In April 2014, 18 discrete soil samples were collected from nine borings, RB-1 to RB-9, advanced along the paved portion of the former rail spur. Soil samples were collected from approximately 0.3-feet and 1.0-foot into native soil (3-feet to 4-feet below ground surface). Laboratory analysis of the discrete soil samples revealed PCBs up to 1,738 mg/kg.

In September 2014, 19 soil samples were collected from an approximately 30-foot by 30-foot grid within the unpaved portion of the former rail spur. The soil samples were collected at approximately 1-foot and 2-feet below ground surface. Laboratory analysis of the discrete soil samples revealed PCBs up to 2,190 mg/kg.

Based on the soil sample data and USEPA requirements, this *Cleanup Plan* to address PCBs in Site soil within the unpaved and paved portions of the former rail spur owned by 899 Broadway Associates was developed that includes capping with asphalt and institutional controls. In addition, an Operations and Maintenance Plan (O&M Plan; Appendix B) has also been developed, which outlines the inspection, notification and maintenance procedures to be performed following cap installation.

2.0 SITE DESCRIPTION

The 0.2-acre Site is comprised of a narrow strip of unpaved and paved land ranging between approximately 20 feet to 45 feet wide and approximately 600 feet long located northeast of the intersection of Bay Road and Woodside Road adjacent to 2201 Bay Road in Redwood, California (Figure 1-2). The unpaved portion of the Site is approximately 340 feet long and is secured by chain link fencing. The paved portion of the Site is approximately 260 feet long and located on the R&B Pipe Company property.

The Site is bounded by: office buildings and the Smart & Final grocery store to the west and northwest; the R&B Pipe Company to the north and northeast; the former Tyco property to the east and south; and the Bay Road and Woodside Road intersection to the southwest.

The land use near the Site is mixed commercial and industrial. Details regarding the Site and surrounding area were provided in AMEC Geomatrix's February 2011 *Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California* (AMEC, 2011).

3.0 SUMMARY OF INVESTIGATIONS

Investigations and interim actions have been conducted on-Site since 2010. The investigations included collection of soil, wipe and bulk samples. Interim actions included soil stabilization of the unpaved portion of the Site to control dust. PCBs were detected in soil samples collected from the unpaved portion of the Site up to 3,520 mg/kg and up to 1,738 mg/kg in the samples collected from the paved portion of the Site. Investigations and remedial actions have also been conducted on the adjacent property located 2201 Bay Road since 1999. Details of the previous investigations conducted at 2201 Bay Road are provided in AMEC's February 2011 *Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California* (AMEC, 2011). Remedial actions were implemented on the adjacent 2201 Bay Road property in 2012, which included soil removal to approximately 8 feet below ground surface (AMEC. 2011). Details of the Site investigations and interim actions are provided below.

3.1 SOIL SAMPLING-2010

In 2010, 40 discrete soil samples were collected from 20 borings (W-1 to W-20) at 0.3-feet and 1-foot below ground surface (Figure 3-1). The 40 discrete soil samples were composited into 20 two-way composite samples (W-1,-2 to W-19,-20) by the analytical laboratory and analyzed for PCBs using USEPA Method 8082. Laboratory analysis of the samples collected from 0.3 feet below ground surface revealed total PCBs (sum of Aroclor 1254 and Aroclor 1260) up to 3,520 mg/kg (W-1,-2). Laboratory analysis of the samples collected from one foot below ground surface revealed total PCBs up to 2,782 mg/kg (W-1,-2) (Table 3-1 and Figure 3-1). Lower concentrations of PCBs in soil, less than 6.5 mg/kg were detected in the remaining samples W-3,-4 to W-19,-20.

3.2 DUST SUPPRESSANT APPLICATION – 2013

On June 21, 2013, pursuant to the May 31, 2013 USEPA directive, a dust suppressant polymer was applied to the unpaved portion of the Site to stabilize the surface soil. The dust suppressant

polymer was applied by spraying a polymer-water mixture onto the Site using a water truck. The water truck traversed along the northern edge of the Site from the adjacent 1155 Broadway property and applied two to three coatings of the mixture onto the Site soil.

3.3 WIPE AND BULK SAMPLING – 2013

In 2013, wipe and bulk samples were collected from the adjacent properties to characterize the potential presence of dust containing PCBs (Figure 3-2). Wipe samples were collected from: a window pane on 1155 Broadway (WP-3); a parking lot sign within the Smart & Final retail store parking lot (WP-4); and from the R&B Company property including metal shelving (WP-1 and WP-2) and piping (WP-8 and WP-9) previously stored on the Site, forklifts that entered the Site (WP-5 and WP-6) and the forklift wash area (WP-7). Bulk samples were also collected from materials previously stored on the Site including: a wooden shipping frame (BK-3); a metal shipping frame (BK-4); and wooden pallets (BK-5). A bulk soil sample was also collected from a sand fill material on the R&B Company property located adjacent to the access gate for the Site. Details of the sample collection and laboratory analytical results are present below.

3.3.1 Wipe Sample Collection Methodology and Analytical Results

The wipe samples were collected using a laboratory-prepared glass jar containing a gauze pad treated with isopropyl alcohol. Sample collection consisted of removing the gauze pad from the glass jar then wiping with a gloved hand within a 10cm by 10cm area designated by a disposable template. The wipe samples were first collected by wiping in columns top to bottom within the 10cm by 10cm template by moving left to right across the template. The gauze pad was then wiped in rows left to right within the 10cm by 10cm template by moving top to bottom. Following sample collection, the gauze pad was then placed back into the glass jar, labeled and placed in a chilled cooler for transportation to K Prime, Inc., a California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory following ASTM D 4840 chain-of-custody protocols. The wipe samples were analyzed for PCBs by USEPA Method 8082A/3550C.

Laboratory analysis of the wipe samples did not reveal PCBs above the laboratory-reporting limits of 1 microgram per wipe (µg/wipe). A summary of the wipe sample analytical results is included in Table 3-2.

3.3.2 Bulk Sample Collection Methodology and Analytical Results

The bulk samples BK-3 to BK-5 were collected by removing an approximately 10cm by 10cm section of the wooden and metal materials using hand tools. The wooden and metal samples were then placed in a plastic baggie, labeled and placed within a chilled cooler for transportation to K Prime, Inc., a CDPH ELAP certified laboratory following ASTM D 4840. Bulk sample BK-2 was collected from the upper 2cm of the sand fill material by using a disposable plastic trowel. The sand fill material was then placed into a laboratory-supplied glass jar, labeled and placed in a chilled cooler for transportation to K Prime, Inc., a CDPH ELAP certified laboratory following ASTM D 4840. The bulk samples were analyzed for PCBs using USEPA 8082A/3550C. Laboratory analysis of the bulk samples BK-3 to BK-5 did not reveal PCBs above the laboratory reporting limits between 0.100 mg/kg and 0.160 mg/kg. Laboratory analysis of the bulk sample BK-2 revealed PCBs as Aroclor 1260 at 0.579 mg/kg. A summary of the bulk sample analytical results is included in Table 3-2.

3.4 SOIL SAMPLING – APRIL 2014

In April 2014, 18 soil samples were collected from nine borings RB-1 to RB-9 from beneath the paved portion of the former RSP (WEST, 2014). The soil samples were collected within native soil at 0.3-feet (approximately 3-feet to 4-feet below ground surface) and 1-foot below (approximately 4-feet to 5-feet below ground surface), below the contact of the native soil and base rock. Details of the soil sample collection methodology and laboratory analytical results are presented below.

3.4.1 Sample Collection

The soil samples were collected from borings advanced using hydraulic direct-push drilling equipment operated by Environmental Control Associates of Aptos, California, a California C-57 licensed well drilling contractor. Due to limited access from the pipe storage, the borings were located approximately four to six feet from the southern edge of the paved portion of the former RSP (Figure 2). The soil samples were collected at approximately 0.3 feet and one foot below the base of the asphaltic concrete and base rock. Soil cores were collected continuously using a two-inch diameter, four-foot long continuous core barrel outfitted with an acetate liner. The down-hole reusable sampling equipment was decontaminated by triple rinsing prior to reuse at each sampling location. An equipment blank was also collected to characterize decontamination procedures.

The soil samples were collected by cutting the acetate liners at the target depths. The ends of the soil samples were then covered with Teflon sheets and plastic end caps, placed in a chilled cooler and transported to K Prime, Inc., of Santa Rosa, California, a CDPH ELAP certified laboratory for chemical analysis following chain-of-custody procedures outlined in ASTM D 4840. A blind duplicate sample was also collected and transported to K Prime, Inc., for analysis. The soil samples were analyzed for PCBs using United States Environmental Protection Agency (USEPA) Method 8082A/3550C and the results were reported as a dry-weight. The equipment blank was analyzed for PCBs using USEPA Method 8082A/3510.

3.4.2 Laboratory Results

Laboratory analysis of the soil samples collected at approximately 0.3 feet into the native soil (approximately 3 feet to 4 feet below ground surface) from borings RB-1 to RB-9 revealed total PCBs between 0.144 mg/kg (RB-2) and 405 mg/kg (RB-7) (Table 3-1 and Figure 3-1). Laboratory analysis of the soil samples collected at approximately 1 foot into the native soil (approximately 4 to 5 feet below ground surface) from borings RB-1 to RB-9 revealed total PCBs between 0.058 mg/kg (RB-3) and 1,738 mg/kg (RB-8) (Table 3-1 and Figure 3-1).

Laboratory analysis of the equipment blank did not reveal PCBs above the laboratory-reporting limit of 0.500 micrograms per liter (µg/l).

3.5 GRID SAMPLING – SEPTEMBER 2014

In September 2014, 19 soil samples were collected from an approximately 30-foot by 30-foot grid on the unpaved portion of the RSP. The soil samples were collected from 10 borings, A-1 to D-1, advanced within 10-foot by 10-foot grid cells. The soil samples were collected at approximately 1-foot and 2-feet below ground surface. Details of the soil sample collection methodology and laboratory analytical results are presented below.

3.5.1 Sample Collection

The soil samples were collected from borings advanced using hydraulic direct-push drilling equipment operated by Environmental Control Associates of Aptos, California, a California C-57 licensed well drilling contractor. Soil cores were collected continuously using a two-inch diameter, four-foot long continuous core barrel outfitted with an acetate liner. The down-hole reusable sampling equipment was decontaminated by triple rinsing prior to reuse at each sampling location. An equipment blank was also collected to characterize decontamination procedures.

The soil samples were collected by cutting the acetate liners at the target depths. The ends of the soil samples were then covered with Teflon sheets and plastic end caps, placed in a chilled cooler and transported to K Prime, Inc., of Santa Rosa, California, a California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) certified laboratory for chemical analysis following chain-of-custody procedures outlined in ASTM D 4840. The soil samples were analyzed for PCBs using USEPA Method 8082A/3550C and the results were reported as a dry weight. The equipment blank was analyzed for PCBs using USEPA Method 8082A/3510.

Laboratory analysis of the soil samples collected at 1 foot below ground surface revealed PCBs up to 477 mg/kg (B-2). Laboratory analysis of the soil samples collected at 2 feet below ground surface revealed PCBs up to 2,190 mg/kg (A-2). Copies of the laboratory data certificates and chain-of-custody forms are included in Appendix A.

4.0 DATA EVALUATION

Investigations have revealed the presence of PCBs in soil at the Site. An assessment of the potential risks to human health and the environment associated with the presence of PCBs in the soil requires an accurate CSM. A CSM was prepared which incorporates all of the Site data and describes the fate and distribution of chemicals in the subsurface. Through a comparison with the data, the CSM was used to assess the adequacy of the Site characterization and identify whether more information is required to make decisions regarding appropriate response actions, i.e., data gaps.

4.1 CONCEPTUAL SITE MODEL

Evaluation of the data have revealed that the distribution of PCBs in soil at the Site is attributable to accidental releases, spills and leaks of PCB-laden dielectric fluid during transfer from the rail cars at 2201 Bay Road as presented in AMEC Geomatrix's February 2011 *Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California* (AMEC, 2011). A review of historic operations, chemical distribution in soil and the chemical fate and transport was performed in the development of the CSM. The CSM for the Site incorporates known historical operations, geology and hydrogeology, properties of the chemicals at the Site, potential preferential pathways and potential exposure scenarios. Investigations have revealed PCBs. As part of the development of the CSM, a review was conducted of potential preferential pathways, potential sensitive receptors and geologic conditions that could have influenced the migration of contaminants. The Site is currently vacant, undeveloped, fenced and located within a commercial/industrial area.

4.2 SCREENING LEVEL ASSESSMENT

Using the CSM, a screening level assessment has been performed that includes a comparison of chemical data at the Site to potentially applicable human health and environmental protection criteria. The screening level assessment was performed to assist in assessing the adequacy of the

existing data. The screening level assessment consisted of three components: (1) identification of potential exposure pathways; (2) estimation of exposure concentrations; (3) identification of appropriate screening levels for each media; and (4) a comparative analysis. The screening level assessment has been used to evaluate conditions of potential concern and identify areas for additional investigations, i.e., data gaps.

4.2.1 Exposure Pathway Evaluation

Exposure pathways for PCBs in soil at the Site have been evaluated to assess the potential impacts to human health and the environment. Potential human exposure to PCBs is limited to direct contact with soil within the upper two feet by future Site workers (USEPA, 2002).

4.2.2 Estimated Exposure Concentration

The maximum concentration detected in soil was used as the reasonable maximum exposure (RME) concentration. The California Environmental Protection Agency (CalEPA) recommends that maximum beneficial uses of a property be the basis for evaluation. The current and future use of the Site is commercial/industrial. Therefore, conditions in soil at the Site have been screened using the methods described below based on a commercial/industrial exposure scenario.

4.2.2.1 EXPOSURE CONCENTRATIONS

The maximum-detected concentrations of the PCBs were used to estimate the reasonable maximum exposure (RME) point concentration for comparison with the identified screening levels pursuant to USEPA guidance (USEPA, 1992).

4.2.3 Identification of Screening Levels

Based on the identified exposure pathways, screening levels were identified for chemicals in soil. The screening levels are not necessarily cleanup goals, but have been selected to evaluate Site conditions and identify the necessity for additional actions, e.g., supplemental investigations or

interim actions. The screening levels are conservatively calculated threshold values below which particular chemicals are believed to "be below thresholds of concern for risks to human health." The presence of a chemical at concentrations in excess of a screening level does not indicate that adverse impacts to human health are occurring or will occur but suggests that further evaluation of potential human health concerns is warranted. The results of the investigation have been compared with screening levels presented in the USEPA Regional Screening Levels (RSLs) (USEPA, 2014a).

4.2.3.1 USEPA REGIONAL SCREENING LEVELS

The USEPA has developed RSLs. RSLs combine current USEPA toxicity values with standard exposure factors to estimate concentrations "in environmental media (soil, air, and water) that are protective of humans, including sensitive groups, over a lifetime" (USEPA, 2012). As outlined by the USEPA, RSLs "are chemical-specific concentrations for individual contaminants in air, drinking water and soil that may warrant further investigation or site cleanup."

When considering RSLs as preliminary remediation goals (PRGs), USEPA recommends that maximum beneficial uses of a property be the basis for evaluation. The anticipated future use of the Site includes commercial/industrial. Therefore, the data will be evaluated with respect to commercial/industrial RSLs. The commercial /industrial RSL for PCBs including Aroclor 1254 and Aroclor 1260 is 0.74 mg/kg.

4.2.3.2 40 CFR 761

Pursuant to 40 CFR 761.61(a)(4)(ii), for non-porous surfaces, the PCB cleanup standard is less than or equal to 10 µg/100 cm^2 area.

4.3 COMPARATIVE ANALYSIS

Laboratory analytical results for the soil, wipe and bulk samples have been compared to the identified evaluation criteria to assist in identifying conditions of concern.

4.3.1 Soil Conditions

PCBs have been detected in soil up to 3,520 mg/kg, above the USEPA RSL of 0.74 mg/kg.

4.3.2 Wipe Samples

Laboratory analysis of the wipe samples did not reveal PCBs above the laboratory-reporting limit of 1 µg/wipe over a 100 cm^2 area, which is below the 40 CFR 761.61 PCB cleanup standard for non-porous surfaces of 10 µg/100 cm^2.

4.3.3 Bulk Samples

Laboratory analysis of the bulk samples revealed PCBs up to 0.579 mg/kg (BK-2), which is below the 40 CFR 761.61 high occupancy PCB cleanup standard for bulk PCB remediation waste of 1 mg/kg and below the USEPA RSL of 0.74 mg/kg.

4.4 SUMMARY

Based on the wipe and bulk sample analytical results and the re-stabilization of the Site, additional actions are not necessary to address potential airborne dust-containing PCBs on adjacent properties. However, based on the comparative analysis, soil capping with institutional controls is necessary to address the potential exposure to future Site workers to PCBs in soil.

4.5 DATA GAP ANALYSIS

The CSM generally describes the conditions at the Site and that the potential exposure to PCBs in soil is limited to the upper two feet. Based on the identified exposure pathway, a cleanup plan has been developed which includes capping and institutional controls.

5.0 CLEANUP PLAN IMPLEMENTATION

Based on the data evaluation, a cleanup plan has been developed to address the presence of PCBs in soil in accordance with 40CFR761(c). The cleanup plan includes installation of an asphalt cap in conformance with 40CFR761 and use of institutional controls to control exposures. The cap will be constructed as a physical barrier to mitigate potential exposure to future Site workers. The institutional controls include adopting land use covenants (LUCs) limiting: Site use; disturbance of the cap; and security fencing.

The following tasks were developed to achieve the goals of the cleanup plan.

Task 1.0: Notifications

Task 2.0: Site Preparation

Task 3.0: Pre-Cap Sampling

Task 4.0: Capping

Task 5.0: Equipment Decontamination

Task 6.0: Land Use Covenants

Task 7.0: Cap Monitoring

Task 8.0: Contingency Plan

Task 9.0: Completion Report.

5.1 TASK 1.0: NOTIFICATIONS

Pursuant to 40 CFR 761.61, submittal of the *Cleanup Plan* will constitute notification to the USEPA of the proposed cleanup.

5.2 TASK 2.0: SITE PREPARATION

Prior to cap installation, the unpaved portion of the Site will be grubbed and cleared of weeds and debris then graded to level the ground surface. Low areas will be backfilled with graded soil. Following grading, the ground will be compacted using a smooth drum roller. The existing asphalt on the paved portion of the Site will be swept of debris and detritus and then pressure washed.

5.2.1 Worker Health and Safety

Due to the potential exposure to PCBs in soil, a HASP will be prepared and followed by on-Site personnel. The HASP will be prepared to address the requirements of the Occupational Health and Safety Administration (OSHA) 29 CFR 1910.120 guidelines and Title 8 CCR Section 5192. The HASP will be read by Site workers and visitors to apprise them of the Site conditions and provide instructions for implementing proper safety training and procedures during development activities.

As phases of work proceed, the HASP will be updated to reflect: Site organizational structure; names of key personnel; personnel training requirements; medical surveillance program; summary of risk assessment; a task-specific hazard analysis; Site control program; personal protective equipment use; air monitoring plan; decontamination procedures; emergency response plan; spill containment; Site sanitation facilities; and standard operating procedures. The contractor conducting the development activities should also use their Injury and Illness Prevention Program (IIPP) in conjunction with the HASP.

5.2.2 Contractor Qualifications

Pursuant to Business & Profession Code, contractors performing excavation of the contaminated soil should be required to have a Class A license with a Hazardous Substances Removal Certification. In addition, the contractor's work force should be required to have 40 hours of

OSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training and use appropriate personal protection equipment (PPE) to control exposure to contaminants of concern (COCs). As appropriate, the contractor's personnel should also have current eight hours of supervisory training prior to work at the Site.

5.2.2.1 AIR MONITORING

Visual and real-time air monitoring for respirable dust will be performed during excavation and soil handling activities. The objective of the air-monitoring program is to document condition, and as appropriate, adjust work activities to protect the health and safety of the on-Site construction workers and nearby community. The real-time dust monitoring should be conducted at upwind and downwind locations. The upwind and downwind monitoring locations should be adjusted, as necessary, depending on the direction of the prevailing winds.

Real-time respirable dust air monitoring will be performed using a Monitoring Instruments for the Environment, Inc. (MIE) data logging real time monitor, model PDR-1000 respirable air monitor (RAM), or equivalent. The PDR 1000 is designed to measure the concentration of airborne particulate matter using a high sensitivity nephelometer (photometer) using a light scatter sensor. Sensitivity of the PDR 1000 is reported to range from 0.001 milligrams per cubic meter (mg/m^3) to 400 mg/m^3. The RAM should be calibrated daily.

5.2.2.2 DUST CONTROL

Dust control will be performed by applying water with a low-pressure spray system. Low volumes of potable water will be routinely spread in areas where dust may be generated because of excavation activities. If monitoring indicates that the dust control measures are not adequate, then additional engineering control measures will be implemented. These additional measures should include, but are not limited to: 1) change of work procedures; 2) soil wetting during and grading; and 3) use of dust palliatives.

5.2.3 Site Control

Access to the Site will be controlled by the contractor to prevent unauthorized entry. Fencing and other barricades should be maintained by the contractor, and the construction entrance will be closed and locked during non-working hours to prevent entrance to the Site by unauthorized personnel.

5.3 TASK 3.0: PRE-CAP SAMPLING

Following grading and prior to capping, soil samples will be collected from surface soil within the unpaved portion of the Site (Figure 5-1). A summary of the soil sampling collection methodology is presented below.

5.3.1 Sampling Grid

Prior to sample collection, an alpha-numeric sampling grid will be laid out on the Site (Figure 5-1). The grid will be comprised of approximately 20-foot by 20-foot grid cells. Soil samples will then be collected from the center of the grid cell for laboratory analysis. Soil samples will also be collected from the edge of the grid cell at approximately 40-foot intervals along the perimeter of the unpaved portion of the Site (Figure 5-1).

5.3.2 Sample Collection

The soil samples will be collected using a handheld drive sampler equipped with a 6-inch long 1.5-inch diameter stainless steel core barrel outfitted with stainless steel liners. The stainless steel liners will then be retrieved from the core barrel, capped with Teflon sheets and plastic end caps, labeled and placed in a cooler for transportation to a California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory following ASTM D 4840 chain-of-custody protocols. The soil samples will then be analyzed

using United States Environmental Protection Agency (USEPA) Method 8082/3550C. The analytical results will be reported as dry weight.

5.3.3 Surveying

The soil sample locations will be surveyed by a California licensed land surveyor using NAD 83 datum. The survey coordinates and the laboratory analytical results will be included in the land use restrictions recorded for the Site.

5.4 TASK 4.0: CAPPING

The Site will be capped using asphalt concrete (Figure 5-2). Approximately 6 inches of asphalt concrete will be placed above the graded surface on the unpaved portion of the Site. In addition, approximately 4 inches of asphalt concrete will be placed above the existing asphalt concrete on the paved portion of the Site. Details of the cap and cover are presented below depicted on Figures 5-2 and 5-3.

5.4.1 Asphalt Placement

5.4.1.1 UNPAVED AREA

Following grading and compaction, an approximately 6-inch thick cap comprised of Class B asphalt concrete will be installed above the graded ground surface. The asphalt concrete will be placed in two equal lifts. Each lift will be compacted to approximately 93 percent using the rice gravity method in accordance with ASTM Method 2041 (Section 39 of Caltrans specifications).

5.4.1.2 PAVED AREA

A tack coat layer will be applied on the existing asphalt concrete pavement prior to placement of cap. Once the tack coat is dry, an approximately 4-inch thick cap comprised of Class B asphalt concrete will be installed above the graded ground surface. The asphalt concrete will be placed

in two equal lifts. Each lift will be compacted to approximately 93 percent using the rice gravity method in accordance with ASTM Method 2041 (Section 39 of Caltrans specifications).

5.5 TASK 5.0: EQUIPMENT DECONTAMINATION

Pursuant to 40CFR761.79(c)(2),(e),(f) and (g), equipment used for excavation will be decontaminated by a double wash/rinse method pursuant to the procedures defined in 40CFR761.360, Subpart S, prior to leaving the Site.

5.5.1 Decontamination Area and Worker Safety

Consistent with 40CFR761.79(e), a designated decontamination area will be established which will include plastic sheeting placed on the ground surface. The plastic sheeting will be outfitted with a berm to contain decontamination fluids. Equipment will then be staged within the bermed area. Personnel conducting the equipment decontamination will follow the procedures and protocols detailed in the contractor HASP.

5.5.2 Decontamination Procedures

Pursuant to 40CFR761.363, the equipment decontamination procedures will include two washing and two rinsing steps. Details of the decontamination procedures are presented below.

5.5.2.1 FIRST WASH/RINSE

Pursuant to 40CFR761.375(a)(b), initially, the exterior surfaces of the equipment will be wet washed with an industrial strength detergent or non-ionic surfactant solution for a minimum of one minute using disposable scrubbers and absorbent pads to remove soil and dust adhered to the equipment. Following the initial washing, the equipment surfaces will then be wiped using disposable absorbent pads to remove residual cleaner solution until the equipment surface appears dry. Following the initial wash, the equipment surfaces will be rinsed with water using a

low-pressure sprayer. Following the initial rinse, the equipment surfaces will then be wiped with disposable absorbent pads until the surface appears dry.

5.5.2.2 SECOND WASH/RINSE

Pursuant to 40CFR761.375(c)(d), the second wash will be conducted by applying an organic solvent using scrub brushes and/or disposal scrubbing pads to the equipment surfaces and let stand for a minimum of one minute. The organic solvent will then be wiped from the equipment surfaces using disposable absorbent pads until no visible traces of solvent remain.

The equipment surfaces will then wetted with a clean rinsed solvent and allowed to stand for a minimum of one minute. The clean rinse solvent will then be wiped from the equipment surfaces using a clean disposable absorbent pad until no liquid is visibly present on the surface.

In addition, rip-rap will be placed at the Site entrance to minimize track-out of materials from the Site following decontamination procedures.

5.5.3 Documentation and Recordkeeping

Pursuant to 40CFR761.79(f), field notes and photographs of the decontamination procedures will be taken to document that equipment used during the soil excavation has been decontaminated. The decontamination records will be maintained for three years following completion of the decontamination procedures.

5.5.4 Decontamination Fluids

Pursuant to 40CFR761.79(g), the decontamination fluids will be contained and placed in a 55-gallon United states Department of Transportation (USDOT)-approved containers for temporary storage on the Site. The decontamination fluids will then be sampled and characterized for off-Site disposal pending acceptance by an appropriate disposal facility.

5.6 TASK 6.0: LAND USE COVENANTS

A *Land Use Covenant* (*LUC*) will be prepared and recorded after physical remedial measures are implemented and before the Site is certified by USEPA as being remediated. The *LUC* will be recorded to identify specific land use restrictions associated with the Site. The *LUC* will preclude owners or occupants of the property from drilling, boring or excavating at the Site without an *Operations and Maintenance Plan* (O&M Plan) submitted to the USEPA for review and approval.

5.7 TASK 7.0: CAP MONITORING

An *O&M Plan* has been prepared which outlines the procedures for maintaining the integrity and effectiveness of the cap and security fencing (Appendix B). The *O&M Plan* includes: a summary of the Site conditions: cap construction details; operations and maintenance procedures for cap maintenance; and emergency response and notification protocols.

5.8 TASK 8.0: CONTINGENCY PLAN

If areas of higher PCB concentrations or potential unknown conditions are discovered during grading and/or capping, then work will stop and a notification provided to the USEPA describing the Site conditions. The area will be cordoned off to minimize access. Soil samples will then be collected to characterize the conditions. If, based on the analytical results of the soil samples and discussions with the USEPA, additional measures other than capping are necessary, then a supplemental cleanup plan will be prepared and submitted to the USEPA for review and approval.

5.9 TASK 9.0: COMPLETION REPORT

Subsequent to the capping activities, a *Completion Report* summarizing the findings of the analytical testing and other pertinent data will be prepared for review and approval. The report will include:

- Introduction and executive summary, summary of the soil sampling and capping activities and any changes to the cap design or field activities;
- Field data sheets (i.e., notes, charts, sketches, or photographs), field air monitoring results and a record of field and/or laboratory tests; and
- Summary of deviations from the approved *Cleanup Plan*.

Appendices to the report will include field air monitoring data forms and analytical laboratory data sheets containing quality assurance/quality control (QA/QC) data implemented during the work. The *Completion Report* will be prepared under the supervision of a California Professional Civil Engineer and Geologist, with appropriate qualifications.

6.0 SCHEDULE

The following is a schedule for implementing the tasks outlined in Section 5.0 of this *Cleanup Plan:*

- Capping: within 45 days following approval of the *Cleanup Plan*; and
- Land use covenants: recorded within 60 days following completion of capping.

7.0 REFERENCES

AMEC, *Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California*, (AMEC, 2011).

USEPA, *Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by The Environmental Protection Agency PCB Spill Cleanup Policy*, June 23, 1987, Revised and Clarified April 18, 1991.

USEPA, *Supplemental Guidance to RAGS: Calculating the Concentration Term, Publication 9285.7-081, Intermittent Bulletin, Volume 1, Number 1*, May 1992 (USEPA, 1992).

USEPA, *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, OSWER 9355.4-24*, December 2002 (USEPA, 2002).

USEPA, *Letter to 899 Broadway Associates, Polychlorinated Biphenyls (PCBs), Toxic Substances Control Act (TSCA)-USEPA Directive for Cleanup of PCBs at Railroad Spur Property Adjacent to former Tyco thermal Controls LLC, 2201 Bay Road, Redwood City, California (Former Tyco Property)*, May 31, 2013 (USEPA, 2013).

USEPA, *Regional Screening Levels*, May 2014 (USEPA, 2014a).

USEPA, *Toxic Substances Control Act (TSCA), Polychlorinated Biphenyls (PCBs) – Cleanup of PCBs at Former Railroad Spur Property in Redwood City, California*, July 22, 2014 (USEPA, 2014b).

West Environmental Services & Technology, Inc., *Soil Sample Data Summary, Paved Portion of Railroad Spur Property, R&B Pipe Company Property, Redwood City, California*, July 9, 2014 (WEST, 2014).

8.0 DISTRIBUTION LIST

Ms. Carmen Santos (Electronic and Hard Copy)
RCRA Corrective Action Office
Waste Management Division
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. David Barr (Electronic and Hard Copy)
California Regional Water Quality Control Board
-San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Roland Lampert (Electronic and Hard Copy)
899 Broadway Associates
900 Veterans Boulevard, Suite 410
Redwood City, CA 94063

Geotracker (Electronic Copy)

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Railroad Spur Property - Bay Road
Redwood City, California

Sample ID	Date	Depth (ft)	PCBs		
			Aroclor 1254	Aroclor 1260	Total
			(mg/kg)	(mg/kg)	(mg/kg)
Unpaved Area					
W-1,-2	12/21/10	0.3	2,170	1,350	3,520
		1	1,860	922	2,782
W-3,-4	12/21/10	0.3	0.857	2.18	3.037
		1	1,440	77.2	1,517
W-5,-6	12/21/10	0.3	<0.500	0.574	0.574
		1	0.568	0.483	1.051
W-7,-8	12/21/10	0.3	0.99	1.08	2.07
		1	3.38	1.91	5.29
W-9,-10	12/21/10	0.3	2.89	3.56	6.45
		1	1.75	1.57	3.32
W-11,-12	12/21/10	0.3	0.329	0.412	0.741
		1	<0.100	<0.100	--
W-13,-14	12/21/10	0.3	1.91	2.59	4.50
		1	0.154	0.118	0.272
W-15,-16	12/21/10	0.3	0.713	0.546	1.259
		1	<0.100	0.120	0.120
W-17,-18	12/21/10	0.3	0.164	0.484	0.648
		1	0.365	0.459	0.824
W-19,-20	12/21/10	0.3	0.360	0.504	0.864
		1	<0.100	<0.100	--
A-1	9/5/14	1	54.6	<5.050	54.6
		2	653	<5.300	653
A-2	9/5/14	1	163	<5.030	163
		2	2,190	<5,180	2,190
A-3	9/5/14	1	131	<5.010	131
		2	953	<5.430	953
B-1	9/5/14	1	3.0	<0.529	3.0
		2	436	<5.500	436
B-2	9/5/14	1	67.7	410	477.7
		2	761	<5.470	761
B-3	9/5/14	1	2.61	<0.582	2.61
		2	5.34	20.8	26.1
C-1	9/5/14	1	8.4	18.3	26.7
		2	12.3	<0.525	12.3
C-2	9/5/14	1	3.59	<0.537	3.59
		2	5.19	<0.595	5.19
C-3	9/5/14	2	1,330	<5.360	1,330
D-1	9/5/14	1	<0.00529	0.0506	0.0506
		2	54.8	<0.570	54.8

TABLE 3-1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Railroad Spur Property - Bay Road
Redwood City, California

Sample ID	Date	Depth (ft)	PCBs		
			Aroclor 1254	Aroclor 1260	Total
			(mg/kg)	(mg/kg)	(mg/kg)
Paved Area					
RB-1	4/25/14	0.3	0.242	0.128	0.370
		1	0.373	1.480	1.853
RB-2	4/25/14	0.3	<0.0279	0.144	0.144
		1	2.580	23.70	26.28
RB-3	4/25/14	0.3	0.919	3.760	4.679
		1	<0.0281	0.058	0.058
RB-4	4/25/14	0.3	66.4	88.3	154.7
		1	0.118	0.444	0.562
RB-5	4/25/14	0.3	0.454	2.340	2.794
		1	0.0566	0.339	0.396
RB-6	4/25/14	0.3	16.4	50.9	67.3
		1	0.272	0.901	1.2
			0.086	0.261	0.347
RB-7	4/25/14	0.3	111	294	405
		1	58.9	124	182.9
RB-8	4/25/14	0.3	3.010	4.80	7.81
		1	498	1,240	1,738
RB-9	4/25/14	0.3	1.57	2.49	4.06
		1	4.26	9.92	14.18
USEPA RSL-Industrial (mg/kg)					0.74

Notes:

W-1,-2: Two-way composite sample

mg/kg: milligrams per kilogram

TABLE 3-2
SUMMARY OF WIPE AND BULK SAMPLE ANALYTICAL RESULTS
Railroad Spur Property - Bay Road
Redwood City, California

Location	Sample ID	Sample Type	Sample Description	PCBs
Wipe Samples				(ug/wipe-100cm^2)
R&B Company	WP-1	Wipe	Metal Shelving	<1.00
	WP-2	Wipe	Metal Shelving	<1.00
	WP-5	Wipe	Forklift	<1.00
	WP-6	Wipe	Forklift	<1.00
	WP-7	Wipe	Forklift Wash Area	<1.00
	WP-8	Wipe	Pipes	<1.00
	WP-9	Wipe	Pipes	<1.00
1155 Broadway	WP-3	Wipe	Window	<1.00
Smart & Final	WP-4	Wipe	Metal sign	<1.00
40 CFR 761 (ug/wipe-100cm^2)				10
Bulk Samples				(mg/kg)
R&B Company	BK-2	Bulk	Sand Fill	0.579
	BK-3	Bulk	Wood Shipping Frame	<0.160
	BK-4	Bulk	Metal Shipping Frame	<0.100
	BK-5	Bulk	Wood Pallet	<0.160
USEPA RSL-Industrial (mg/kg)				0.740

Notes:

ug/wipe-100cm^2: micrograms per wipe within 100cm2 area

mg/kg: milligrams per kilogram

40 CFR 761: 40 Code of Federal Regulations PCB Cleanup Level

RSL: USEPA Regionl Screening Level (May 2014).

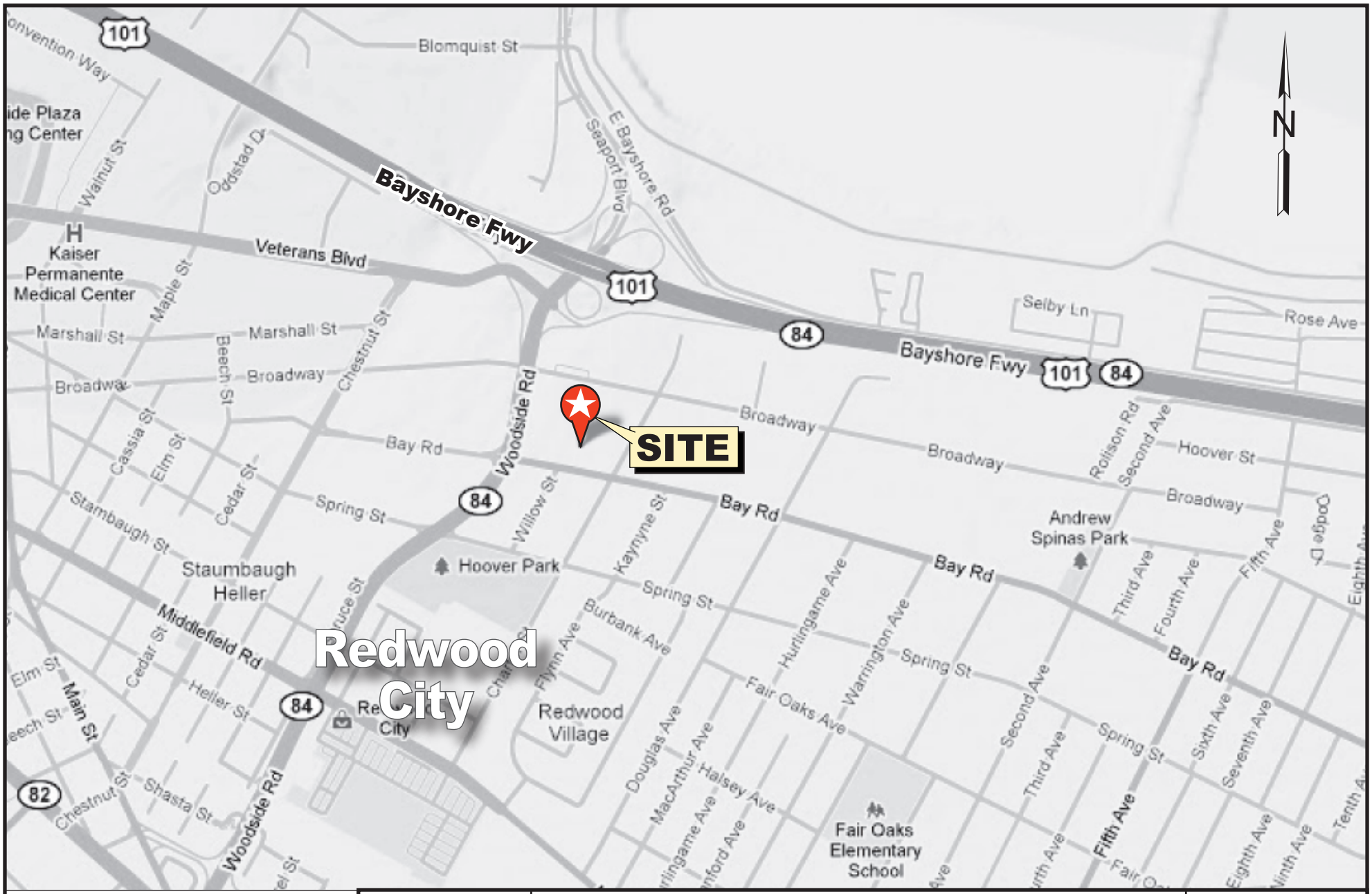


Figure 1-1	**SITE LOCATION MAP**	WEST Environmental Services & Technology
January 2015	Bay Road Railroad Property, Redwood City, California	

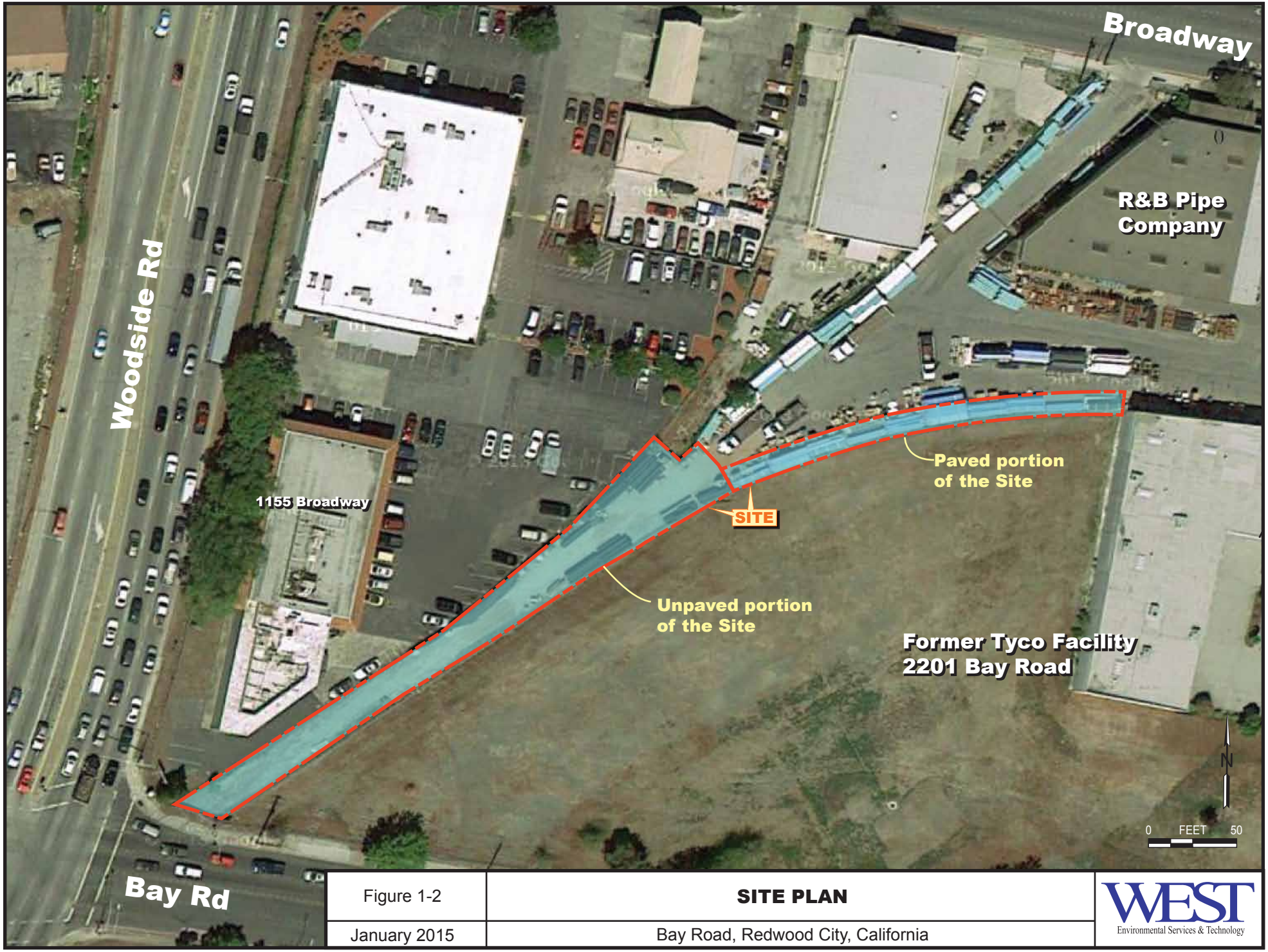


Figure 1-2	**SITE PLAN**	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	

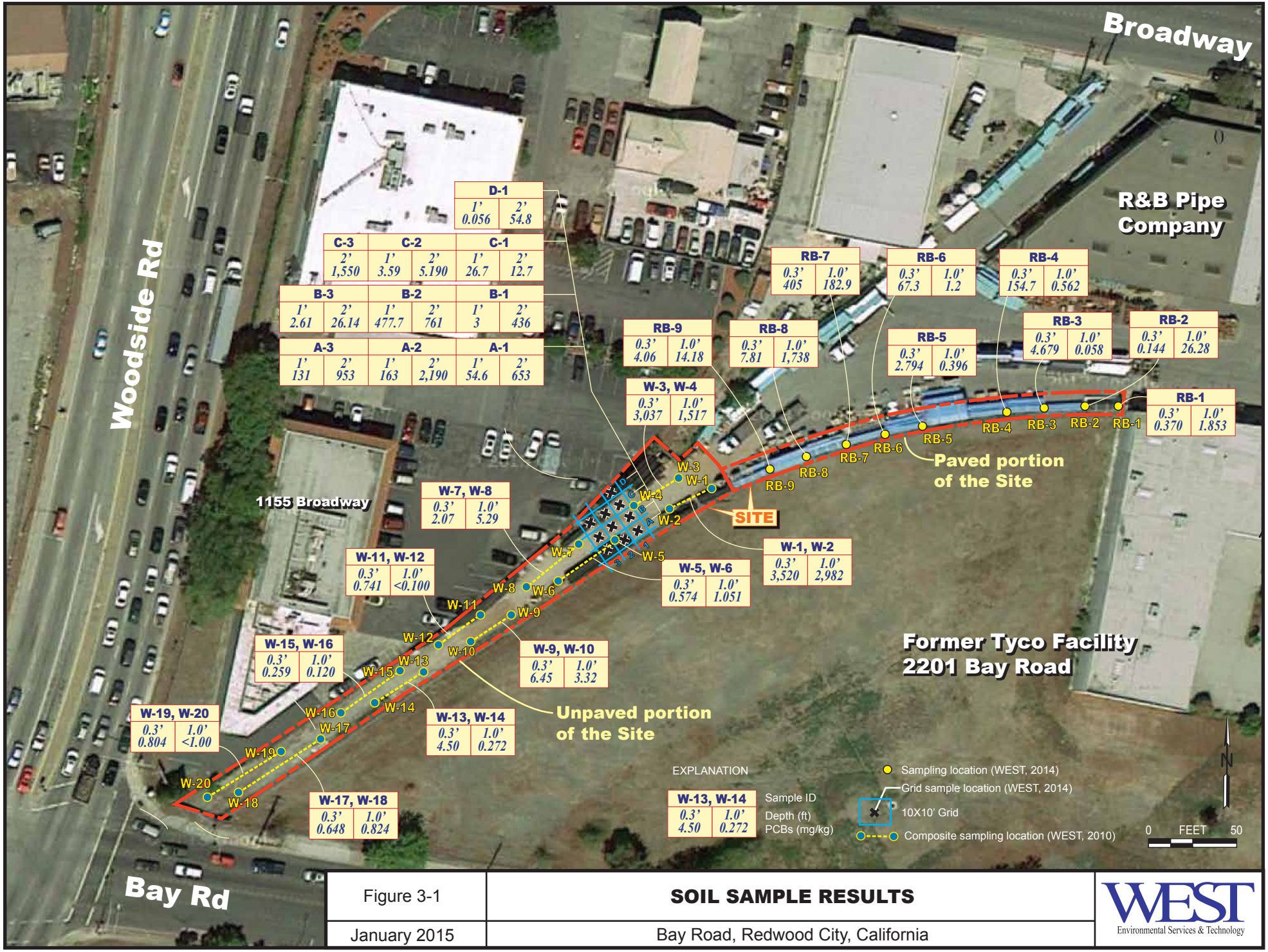


Figure 3-1	SOIL SAMPLE RESULTS	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	

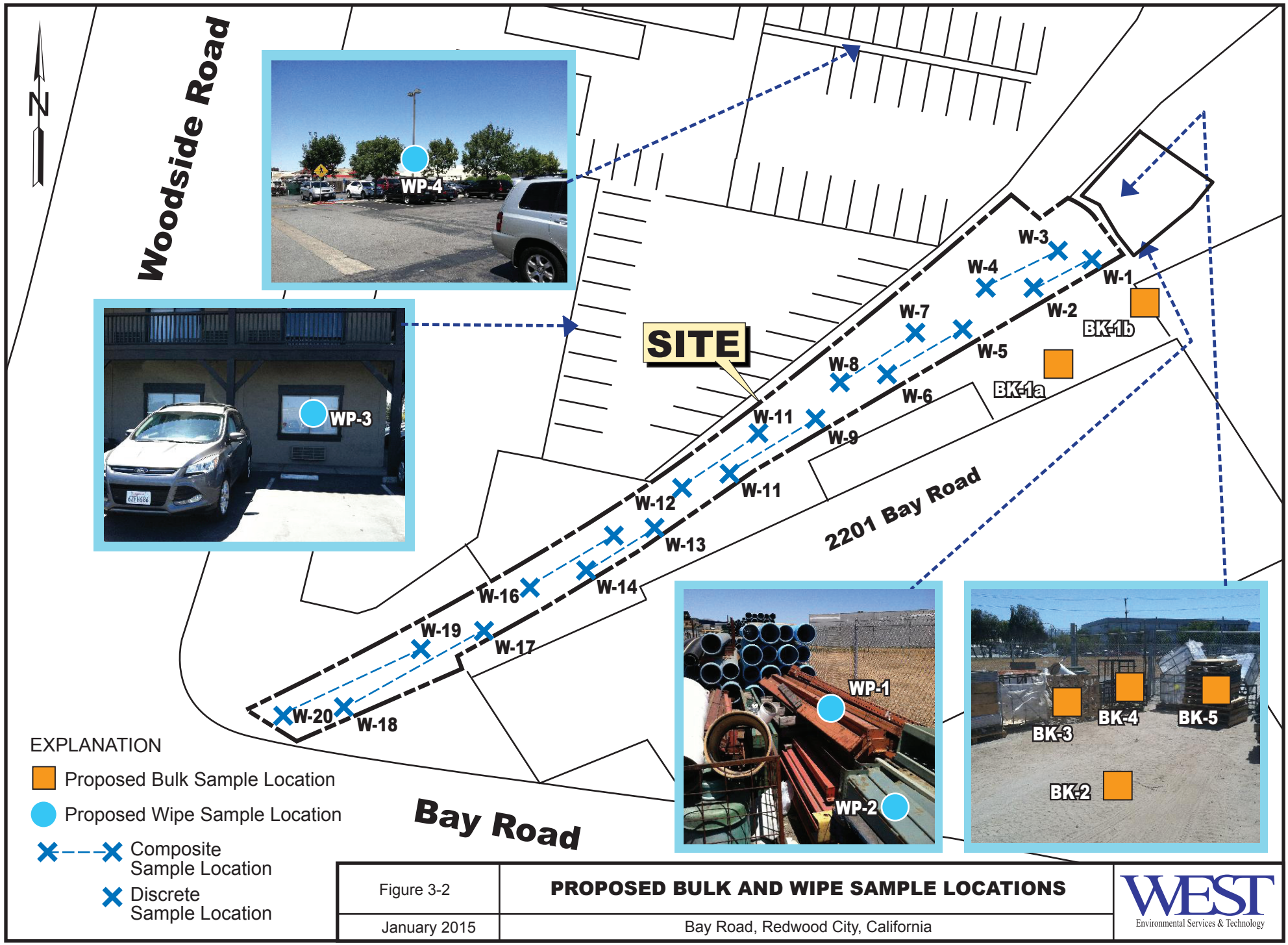


Figure 3-2	**PROPOSED BULK AND WIPE SAMPLE LOCATIONS**	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	

Figure 5-1	**PRE-CAPPING SAMPLING PLAN**	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	

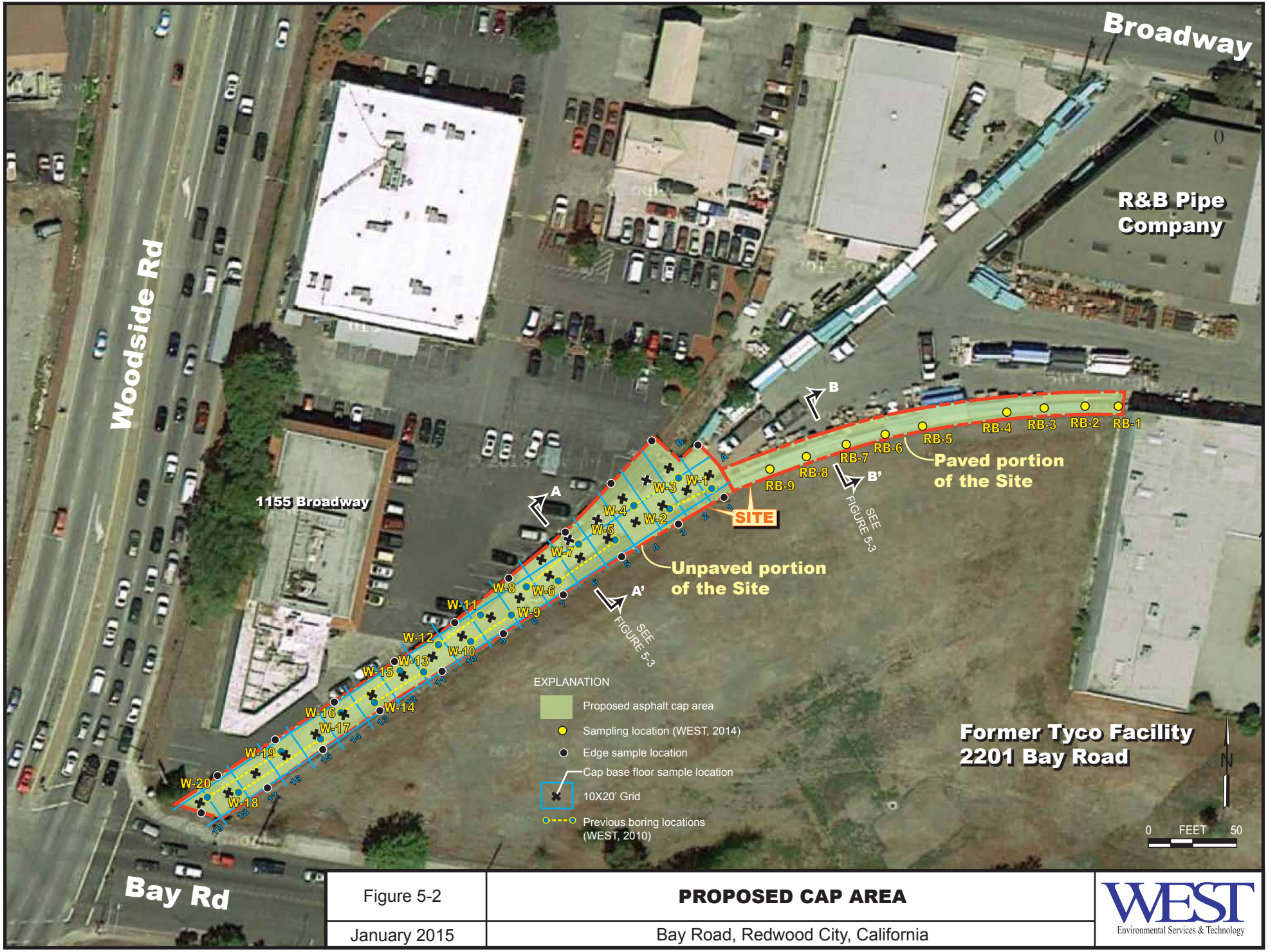
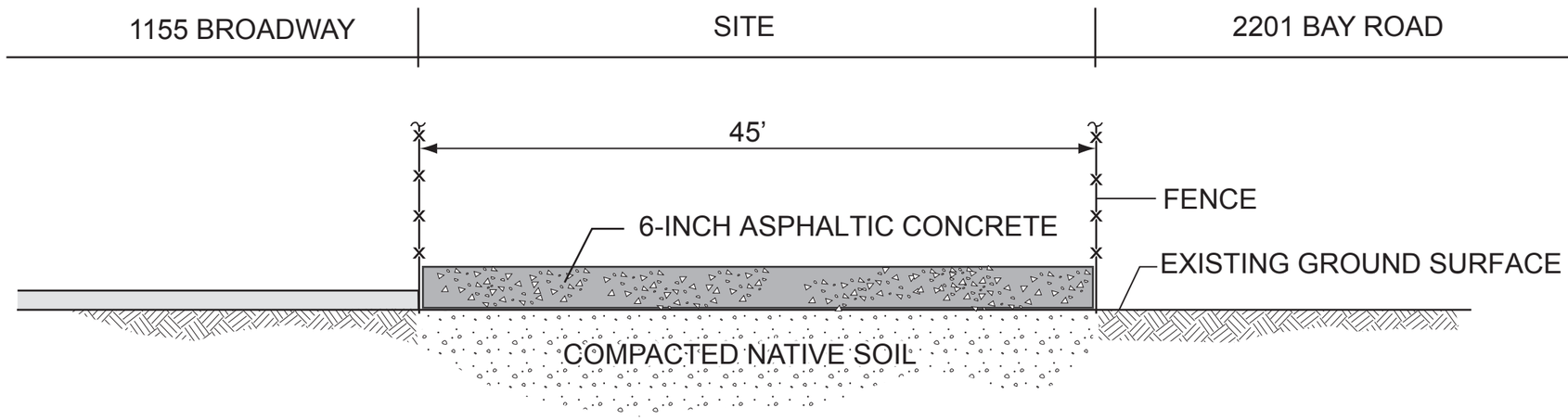
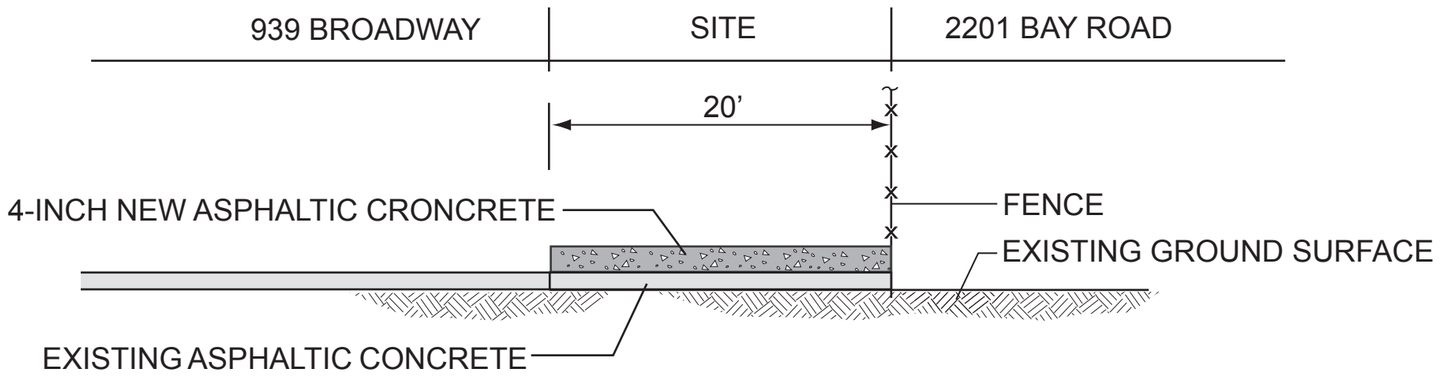


Figure 5-2	**PROPOSED CAP AREA**	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	



A-A’ CAP DETAIL

N.T.S.



B-B’ CAP DETAIL

N.T.S.

CAP DETAILS

Former Rail Spur Properties
Redwood City, California

WEST Environmental Services & Technology

Figure 5-3

January 2015

APPENDIX A

LABORATORY DATA CERTIFICATES AND

CHAIN OF CUSTODY FORMS

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.
Santa Rosa CA 95403
Phone: 707 527 7574
FAX: 707 527 7879

TRANSMITTAL

DATE: 9/10/2014

TO: MR. PETER MORRIS
WEST ENVIRONMENTAL S&T
711 GRAND AVENUE, SUITE 220
SAN RAFAEL, CA 94901

Phone: 415-460-6770
Fax: 415-460-6771
Email: main@westenvironmental.com

ACCT: 9946
PROJ: BROADAY.RC

FROM: Richard A. Kagel, Ph.D. RAK 9/10/2014
Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT BROADAY.RC

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
A1-1'	SOIL	9/5/2014	10:50	124919
A1-2'	SOIL	9/5/2014	10:45	124920
A2-1'	SOIL	9/5/2014	10:35	124921
A2-2'	SOIL	9/5/2014	10:30	124922
A3-1'	SOIL	9/5/2014	9:30	124923
A3-2'	SOIL	9/5/2014	9:25	124924
B1-1'	SOIL	9/5/2014	11:00	124925
B1-2'	SOIL	9/5/2014	10:55	124926
B2-1'	SOIL	9/5/2014	10:25	124927
B2-2'	SOIL	9/5/2014	10:20	124928
B3-1'	SOIL	9/5/2014	9:50	124929
B3-2'	SOIL	9/5/2014	9:45	124930
C1-1'	SOIL	9/5/2014	11:10	124931
C1-2'	SOIL	9/5/2014	11:05	124932
C2-1'	SOIL	9/5/2014	10:10	124933
C2-2'	SOIL	9/5/2014	10:05	124934
C3-1'	SOIL	9/5/2014	10:00	124935
C3-2'	SOIL	9/5/2014	9:55	124936
D1-1'	SOIL	9/5/2014	11:25	124937
D1-2'	SOIL	9/5/2014	11:20	124938

The above listed sample group was received on 9/5/2014 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.
Thank you for this opportunity to be of service.

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A1-1'
LAB NO: 124919
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:50
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5050	ND
AROCLOR 1221	11104-28-2	5050	ND
AROCLOR 1232	11141-16-5	5050	ND
AROCLOR 1242	53469-21-9	5050	ND
AROCLOR 1248	12672-29-6	5050	ND
AROCLOR 1254	11097-69-1	5050	54600
AROCLOR 1260	11096-82-5	5050	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A1-2'
LAB NO: 124920
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:45
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5300	ND
AROCLOR 1221	11104-28-2	5300	ND
AROCLOR 1232	11141-16-5	5300	ND
AROCLOR 1242	53469-21-9	5300	ND
AROCLOR 1248	12672-29-6	5300	ND
AROCLOR 1254	11097-69-1	5300	653000
AROCLOR 1260	11096-82-5	5300	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A2-1'
LAB NO: 124921
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:35
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5030	ND
AROCLOR 1221	11104-28-2	5030	ND
AROCLOR 1232	11141-16-5	5030	ND
AROCLOR 1242	53469-21-9	5030	ND
AROCLOR 1248	12672-29-6	5030	ND
AROCLOR 1254	11097-69-1	5030	163000
AROCLOR 1260	11096-82-5	5030	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RAM
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A2-2'
LAB NO: 124922
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:30
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5180	ND
AROCLOR 1221	11104-28-2	5180	ND
AROCLOR 1232	11141-16-5	5180	ND
AROCLOR 1242	53469-21-9	5180	ND
AROCLOR 1248	12672-29-6	5180	ND
AROCLOR 1254	11097-69-1	5180	2190000
AROCLOR 1260	11096-82-5	5180	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMK
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A3-1'
LAB NO: 124923
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 9:30
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5010	ND
AROCLOR 1221	11104-28-2	5010	ND
AROCLOR 1232	11141-16-5	5010	ND
AROCLOR 1242	53469-21-9	5010	ND
AROCLOR 1248	12672-29-6	5010	ND
AROCLOR 1254	11097-69-1	5010	131000
AROCLOR 1260	11096-82-5	5010	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: A3-2'
LAB NO: 124924
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 9:25
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5430	ND
AROCLOR 1221	11104-28-2	5430	ND
AROCLOR 1232	11141-16-5	5430	ND
AROCLOR 1242	53469-21-9	5430	ND
AROCLOR 1248	12672-29-6	5430	ND
AROCLOR 1254	11097-69-1	5430	953000
AROCLOR 1260	11096-82-5	5430	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B1-1'
LAB NO: 124925
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 11:00
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	529	ND
AROCLOR 1221	11104-28-2	529	ND
AROCLOR 1232	11141-16-5	529	ND
AROCLOR 1242	53469-21-9	529	ND
AROCLOR 1248	12672-29-6	529	ND
AROCLOR 1254	11097-69-1	529	3000
AROCLOR 1260	11096-82-5	529	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B1-2'
LAB NO: 124926
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:55
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5500	ND
AROCLOR 1221	11104-28-2	5500	ND
AROCLOR 1232	11141-16-5	5500	ND
AROCLOR 1242	53469-21-9	5500	ND
AROCLOR 1248	12672-29-6	5500	ND
AROCLOR 1254	11097-69-1	5500	436000
AROCLOR 1260	11096-82-5	5500	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MAC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B2-1'
LAB NO: 124927
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:25
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5160	ND
AROCLOR 1221	11104-28-2	5160	ND
AROCLOR 1232	11141-16-5	5160	ND
AROCLOR 1242	53469-21-9	5160	ND
AROCLOR 1248	12672-29-6	5160	ND
AROCLOR 1254	11097-69-1	5160	67700
AROCLOR 1260	11096-82-5	5160	410000

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B2-2'
LAB NO: 124928
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:20
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5470	ND
AROCLOR 1221	11104-28-2	5470	ND
AROCLOR 1232	11141-16-5	5470	ND
AROCLOR 1242	53469-21-9	5470	ND
AROCLOR 1248	12672-29-6	5470	ND
AROCLOR 1254	11097-69-1	5470	761000
AROCLOR 1260	11096-82-5	5470	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B3-1'
LAB NO: 124929
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 9:50
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	582	ND
AROCLOR 1221	11104-28-2	582	ND
AROCLOR 1232	11141-16-5	582	ND
AROCLOR 1242	53469-21-9	582	ND
AROCLOR 1248	12672-29-6	582	ND
AROCLOR 1254	11097-69-1	582	2610
AROCLOR 1260	11096-82-5	582	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MAC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: B3-2'
LAB NO: 124930
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 9:45
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	546	ND
AROCLOR 1221	11104-28-2	546	ND
AROCLOR 1232	11141-16-5	546	ND
AROCLOR 1242	53469-21-9	546	ND
AROCLOR 1248	12672-29-6	546	ND
AROCLOR 1254	11097-69-1	546	5340
AROCLOR 1260	11096-82-5	546	20800

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: C1-1'
LAB NO: 124931
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 11:10
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	521	ND
AROCLOR 1221	11104-28-2	521	ND
AROCLOR 1232	11141-16-5	521	ND
AROCLOR 1242	53469-21-9	521	ND
AROCLOR 1248	12672-29-6	521	ND
AROCLOR 1254	11097-69-1	521	8400
AROCLOR 1260	11096-82-5	521	18300

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: RMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: C1-2'
LAB NO: 124932
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 11:05
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	525	ND
AROCLOR 1221	11104-28-2	525	ND
AROCLOR 1232	11141-16-5	525	ND
AROCLOR 1242	53469-21-9	525	ND
AROCLOR 1248	12672-29-6	525	ND
AROCLOR 1254	11097-69-1	525	12300
AROCLOR 1260	11096-82-5	525	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MAK
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: C2-1'
LAB NO: 124933
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:10
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	537	ND
AROCLOR 1221	11104-28-2	537	ND
AROCLOR 1232	11141-16-5	537	ND
AROCLOR 1242	53469-21-9	537	ND
AROCLOR 1248	12672-29-6	537	ND
AROCLOR 1254	11097-69-1	537	3590
AROCLOR 1260	11096-82-5	537	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MAC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: C2-2'
LAB NO: 124934
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 10:05
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	595	ND
AROCLOR 1221	11104-28-2	595	ND
AROCLOR 1232	11141-16-5	595	ND
AROCLOR 1242	53469-21-9	595	ND
AROCLOR 1248	12672-29-6	595	ND
AROCLOR 1254	11097-69-1	595	5190
AROCLOR 1260	11096-82-5	595	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: NMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: C3-2'
LAB NO: 124936
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 9:55
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5360	ND
AROCLOR 1221	11104-28-2	5360	ND
AROCLOR 1232	11141-16-5	5360	ND
AROCLOR 1242	53469-21-9	5360	ND
AROCLOR 1248	12672-29-6	5360	ND
AROCLOR 1254	11097-69-1	5360	1330000
AROCLOR 1260	11096-82-5	5360	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: KMC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: D1-1'
LAB NO: 124937
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 11:25
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	5.29	ND
AROCLOR 1221	11104-28-2	5.29	ND
AROCLOR 1232	11141-16-5	5.29	ND
AROCLOR 1242	53469-21-9	5.29	ND
AROCLOR 1248	12672-29-6	5.29	ND
AROCLOR 1254	11097-69-1	5.29	ND
AROCLOR 1260	11096-82-5	5.29	50.6

SURROGATE RECOVERY	%
TCMX	84
DCBP	114

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: MAK
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE ID: D1-2'
LAB NO: 124938
DATE SAMPLED: 09/05/2014
TIME SAMPLED: 11:20
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	570	ND
AROCLOR 1221	11104-28-2	570	ND
AROCLOR 1232	11141-16-5	570	ND
AROCLOR 1242	53469-21-9	570	ND
AROCLOR 1248	12672-29-6	570	ND
AROCLOR 1254	11097-69-1	570	54800
AROCLOR 1260	11096-82-5	570	ND

SURROGATE RECOVERY	%
TCMX	D
DCBP	D

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
D- DILUTED OUT

APPROVED BY: MAC
DATE: 9/10/14

K PRIME, INC.
LABORATORY REPORT

METHOD: PERCENT MOISTURE
REFERENCE: ASTM D 2216-05

K PRIME PROJECT: 9946
CLIENT PROJECT: BROADAY.RC

SAMPLE TYPE: SOIL
UNITS: %

SAMPLE ID	LAB ID #	DATE SAMPLED	TIME SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
A1-1'	124919	9/5/2014	10:50	090814S1	9/10/2014	0.100	0.894
A1-2'	124920	9/5/2014	10:45	090814S1	9/10/2014	0.100	5.72
A2-1'	124921	9/5/2014	10:35	090814S1	9/10/2014	0.100	0.586
A2-2'	124922	9/5/2014	10:30	090814S1	9/10/2014	0.100	3.44
A3-1'	124923	9/5/2014	9:30	090814S1	9/10/2014	0.100	0.231
A3-2'	124924	9/5/2014	9:25	090814S1	9/10/2014	0.100	7.87
B1-1'	124925	9/5/2014	11:00	090814S1	9/10/2014	0.100	5.56
B1-2'	124926	9/5/2014	10:55	090814S1	9/10/2014	0.100	9.16
B2-1'	124927	9/5/2014	10:25	090814S1	9/10/2014	0.100	3.08
B2-2'	124928	9/5/2014	10:20	090814S1	9/10/2014	0.100	8.52
B3-1'	124929	9/5/2014	9:50	090814S1	9/10/2014	0.100	14.0
B3-2'	124930	9/5/2014	9:45	090814S1	9/10/2014	0.100	8.35
C1-1'	124931	9/5/2014	11:10	090814S1	9/10/2014	0.100	4.06
C1-2'	124932	9/5/2014	11:05	090814S1	9/10/2014	0.100	4.84
C2-1'	124933	9/5/2014	10:10	090814S1	9/10/2014	0.100	6.83
C2-2'	124934	9/5/2014	10:05	090814S1	9/10/2014	0.100	16.0
C3-2'	124936	9/5/2014	9:55	090814S1	9/10/2014	0.100	6.76
D1-1'	124937	9/5/2014	11:25	090814S1	9/10/2014	0.100	5.39
D1-2'	124938	9/5/2014	11:20	090814S1	9/10/2014	0.100	12.2

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE
MRL - METHOD REPORTING LIMIT

APPROVED BY: RAM
DATE: 9/10/14

K PRIME, INC.
LABORATORY QC REPORT

METHOD BLANK ID: B090814S1
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	25.0	ND
AROCLOR 1221	11104-28-2	25.0	ND
AROCLOR 1232	11141-16-5	25.0	ND
AROCLOR 1242	53469-21-9	25.0	ND
AROCLOR 1248	12672-29-6	25.0	ND
AROCLOR 1254	11097-69-1	25.0	ND
AROCLOR 1260	11096-82-5	25.0	ND

SURROGATE RECOVERY	%
TCMX	103
DCBP	108

NOTES:
ND - NOT DETECTED ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.
LABORATORY QC REPORT

SAMPLE ID: L090814S1
DUPLICATE ID: D090814S1
BATCH #: 090814S1
DATE EXTRACTED: 09/08/2014
DATE ANALYZED: 09/10/2014

METHOD: POLYCHLORINATED BIPHENYLS
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL
UNITS: ug/Kg

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
AROCLOR 1260	625	ND	522	84	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
AROCLOR 1260	25.0	522	535	2.5	±20

NOTES:
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.

LABORATORY BATCH QC REPORT

		BATCH ID:	090814S1
METHOD:	PERCENT MOISTURE	SAMPLE TYPE:	SOIL
REFERENCE:	ASTM D 2216-05	UNITS:	%

PRECISION (DUPLICATE)

SAMPLE ID: 124938
DUPLICATE ID: 124938DUP

ANALYTE	REPORTING LIMIT	PRIMARY RESULT	DUPLICATE RESULT	RPD (%)
% MOISTURE	0.100	12.2	12.4	1.6

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT APPLICABLE
RPD - RELATIVE PERCENT DIFFERENCE

WEST
Environmental Services & Technology
711 Grand Avenue, Suite 220
San Rafael, California 94901
415.460.6770 - Fax 415.460.6771
main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM
CHAIN-OF-CUSTODY

Invoice to: WEST, Inc.	Date: 9/5/14 Page 1 of 2
Project: Broadway.RC	Location: Bay Road, Redwood City, CA
Project Manager: Peter Morris, WEST, Inc.	Phone: 415/460-6770 Fax: 415/460-6771
Laboratory: KPrime, Inc, Santa Rosa, CA	Turnaround time (days) 1 2 3 5 7 10 Std. — X at 3
Sampler Signature: [signature]	Analyses Requested

Sample ID	KPI #	Date	Time	Type	# Containers	Composite	PCBs (8082A-Extraction Method 3550C)	Moisture Content (ASTM D2216)	HOLD
A1-1'	124919	9/5/14	1050	S	1	—	X	X	
A1-2'	124920	↑	1045	S	1	—	X	X	
A2-1'	124921		1035	S	1	—	~~X~~	~~X~~ PM	
A2-2'	124922		1030	S	1	—	X	X	
A3-1'	124923		0930	S	1	—	X	X	~~X~~ PM
A3-2'	124924		0925	S	1	—	X	X	
B1-1'	124925		1100	S	1	—	X	X	
B1-2'	124926		1055	S	1	—	X	X	
B2-1'	124927		1025	S	1	—	X	X PM	
B2-2'	124928		1020	S	1	—	X	X	
B3-1'	124929	↓	0950	S	1	—	X	X	~~X~~ PM
B3-2'	124930	9/5/14	0945	S	1	—	X	X	

NOTES: REPORT AS DRY weight

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	9-5-14 15:05	L. Swens	9-5-14 15:05
L. Swens	9-5-14 17:24	RW-Cook KPI	9/5/14 17:24

WEST
Environmental Services & Technology
711 Grand Avenue, Suite 220
San Rafael, California 94901
415.460.6770 • Fax 415.460.6771
main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

Invoice to: WEST, Inc.		Date: 9/5/14	Page 1 of 2
Project: Broadway.RC		Location: Bay Road, Redwood City, CA	
Project Manager: Peter Morris, WEST, Inc.		Phone: 415/460-6770	Fax: 415/460-6771
Laboratory: KPrime, Inc, Santa Rosa, CA		Turnaround time (days) 1 2 3 X 5 7 10 Std.	
Sampler Signature:		Analyses Requested	

Sample ID	KPI #	Date	Time	Type	# Containers	Composite	PCBs (8082A-Extraction Method 3550C)	Moisture Content (ASTM D2216)									HOLD
C1-1'	124931	9/5/14	1110	S	1	1	X	X	pm								
C1-2'	124932	↑	1105	S	1	1	X	X									
C2-1'	124933		1010	S	1	1	X	X	pm								
C2-2'	124934		1006	S	1	1	X	X									
C3-1'	124935		1000	S	1	1											X pm
C3-2'	124936		0955	S	1	1	X	X	pm								
D1-1'	124937	↓	1125	S	1	1	X	X									
D1-2'	124938	9/5/14	1120	S	1	1	X	X									

NOTES: REPORT as Dry Weight

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	9-5-14 15:05	L. Swens	9-5-14 15:05
L. Swens	9-5-14 17:24	Rw - Cook KPI	9/5/14 17:24

APPENDIX B

OPERATIONS AND MAINTENANCE PLAN

OPERATIONS AND MAINTENANCE PLAN
Former Rail Spur Property
Bay Road and Broadway
Redwood City, California

January 2015

Prepared for

899 Broadway Associates
900 Veterans Boulevard, Suite 410
Redwood City, California 94063

Prepared by

WEST
Environmental Services & Technology
711 Grand Avenue, Suite 220
San Rafael, California 94901
415/460-6770 Fax 415/460-6771
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SIGNATURE PAGE

All information, conclusions and recommendations contained in this report have been prepared under the supervision of the undersigned professional(s).

Peter M. Krasnoff
California Registered Civil Engineer (44031)

1/6/15
Date

Peter E. Morris
California Professional Geologist (7084)

1/6/15
Date

1.0 INTRODUCTION

This *Operations and Maintenance Plan* ("the O&M Plan") has been prepared by West Environmental Services & Technology ("WEST") for the former railroad spur property (RSP) located adjacent to 2201 Bay Road and extends approximately 600-feet northeast of the intersection of Bay Road and Woodside Road in Redwood City, California ("the Site;" Figures 1-1 and 1-2). The O&M Plan has been prepared pursuant to the United States Environmental Protection Agency (USEPA) July 22, 2014 conditions.

Pursuant to the USEPA request, the purpose of this O&M Plan is to establish formal cap maintenance and monitoring procedures for the Site. To address this goal, the O&M Plan includes the following elements: cap inspection, emergency response measures, repairs and corrective action and reporting.

1.1 BACKGROUND

Union Pacific Railroad operated the rail spur adjacent to 2201 Bay Road in Redwood City, California. Historical operations conducted at 2201 Bay Road included electrical transformer manufacturing and aboveground storage of PCB-laden dielectric fluids. The PCB-laden dielectric fluids were delivered to 2201 Bay Road by railcar staged on the rail spur and transferred via an underground pipeline to aboveground storage tanks. Since 1999, investigations conducted at 2201 Bay Road revealed PCBs in surface soil. Further details regarding the investigations conducted at 2201 Bay Road were provided in AMEC Geomatrix's February 2011 Sampling and Analysis Plan, Tyco Thermal Controls, LLC, 2201 Bay Road, Redwood City, California (AMEC, 2011). In 2012, soil was excavated from 2201 Bay Road adjacent to the southern edge of the Site up to 8 feet below ground surface.

The Site is comprised of an approximately 600-foot long unpaved and paved corridor that curves to the northeast from the intersection of Bay Road and Woodside Road (Figure 1-2). The unpaved portion of the Site is fenced and extends from the intersection of Bay Road and

Woodside Road approximately 340 feet to the southwest corner of the R&B Pipe Company property located at 939 Broadway in Redwood City, California. The width of the unpaved portion of the Site varies from approximately 20 feet near Bay Road to approximately 45 feet adjacent to the R&B Pipe Company property line.

The paved portion of the RSP extends approximately 260 feet to the east from the unpaved portion of the rail spur following the property line between R&B Pipe Company property and the former Tyco property at 2201 Bay Road. The paved portion of the RSP is approximately 20 feet wide and is currently used for pipe and plumbing supply storage by R&B Pipe Company.

Previous activities conducted on the Site have included soil sampling (unpaved and paved portions); implementation of interim measures to stabilize surface soil (unpaved portion); and wipe and bulk samples collected from stored materials on the R&B Pipe Company property, including application of polymer dust suppressant, fencing, and installation of windscreens. In 2010, 40 discrete soil samples were collected at 0.3 feet and 1 foot below ground surface from borings W-1 to W-20 advanced within the unpaved portion of the Site. The 40 discrete soil samples were composted into 20 two-way composite samples for laboratory analysis and revealed PCBs up to 3,520 milligrams per kilogram (mg/kg) in samples collected between 0.3 feet and 1 foot below ground surface.

In May 2013, Site observations indicated that pipe from an adjacent business, the R&B Pipe Company, was stored on the unpaved portion of the Site and that equipment used to move the pipe had disturbed surface soil. In June 2013, pursuant to the May 31, 2013 USEPA directive, the unpaved portion of the Site was re-stabilized with a polymer dust suppressant. In addition, and wipe and bulk samples were collected from the adjacent properties or on materials previously stored on the Site to characterize whether dust containing PCBs present. In addition, the USEPA and the California Regional Water Quality Control Board – San Francisco Bay Region (Regional Board) required preparation of a cleanup plan to address the PCB soil on the Site.

In June 2013, wipe and bulk samples were collected to characterize whether airborne dust containing PCBs may have been deposited on the adjacent properties or on materials previously stored on the Site. Laboratory analysis of the wipe samples did not reveal PCBs above the laboratory-reporting limit of 1 microgram per wipe over a 100 square centimeter area (mg/wipe). In addition, bulk samples collected from the materials previously stored on the Site did not reveal PCBs above the laboratory-reporting limits of 0.100 mg/kg to 0.160 mg/kg. One surface sample collected from a sand fill material on the adjacent R&B Company property contained PCBs at 0.579 mg/kg, which is below the United States Environmental Protection Agency's (USEPA) Regional Screening Level (RSL) of 0.74 mg/kg.

In April 2014, 18 discrete soil samples were collected from nine borings, RB-1 to RB-9, advanced along the paved portion of the former rail spur. Soil samples were collected from approximately 0.3 feet and 1.0 foot into native soil (3 feet to 4 feet below ground surface). Laboratory analysis of the discrete soil samples revealed PCBs up to 1,738 mg/kg.

In September 2014, 19 soil samples were collected from an approximately 30-foot by 30-foot grid within the unpaved portion of the former rail spur. The soil samples were collected at approximately 1 foot and 2 feet below ground surface. Laboratory analysis of the discrete soil samples revealed PCBs up to 2,190 mg/kg.

Based on the previous soil sampling sample data and USEPA requirements, and in accordance with the USEPA directive and 40 CFR 761, this Cleanup Plan cleanup plan to address PCBs in Site soil within the unpaved and paved portions of the former rail spur owned by 899 Broadway Associates has was been developed that includes excavation, capping with asphalt, and institutional controls.

2.0 CAP

2.1 CAP CONSTRUCTION

An asphalt cap was installed over the Site during implementation of the *Cleanup Plan*. The cap consists of graded and compacted soil and 6 inches of Class B asphalt concrete over the unpaved portion of the Site. The cap on the paved portion of the Site consists of approximately 4 inches of Class B asphalt concrete over the existing asphalt pavement (total minimum thickness of 6 inches).

2.2 CAP INSPECTION

Maintenance of the integrity of the asphalt cap requires periodic inspections. Stresses producing minor defects are caused by changes in temperature or moisture content, traffic, or by small movements in underlying or adjacent materials. Cracks, holes, depressions or other types of distress are the visible evidence of cap wear.

Early detection and repair of minor defects is necessary to maintain the integrity of the cap. Cracks and other surface breaks, which in their initial stages are almost unnoticeable, can lead to serious defects if not addressed. Therefore, the cap will be inspected on a periodic basis by qualified technicians, who have completed health and safety training and are current on the cap design. The technicians will be supervised by a California licensed Professional Engineer registered engineer.

The cap will be inspected on an annual basis during the third quarter of each year. The inspections will be conducted to identify areas of cracking, ponding or settlement so that repairs can be made before the onset of rainy season. During each inspection, a Cap Inspection Field Data Sheet will be completed, which describes the condition of the cap and locates areas that require further inspection or repair. This Cap Inspection Field Data Sheet will be included as an

appendix to an Annual Inspection Report submitted for the Site. An example Cap Inspection Field Data Sheet has been included in Appendix A of this O&M Plan.

3.0 EMERGENCY RESPONSE MEASURES

Occasionally, conditions may arise which require emergency action. A series of possible emergency conditions, and the recommended response for each, is outlined below for reference and convenience. The general pattern of response actions in any emergency is as follows:

- Receive notice of emergency or impending emergency.
- Investigate immediately.
- Assess severity of the situation (including potential threat to public health and water supplies).
- Follow appropriate notification schedule, depending upon type and severity of emergency.
- Determine response course of action and implement appropriate emergency plan.
- After emergency is under control, follow appropriate notifications schedule.

3.1 FIRES

In the event of an approaching fire, the main concern should be to evacuate personnel from the Site.

3.2 EARTHQUAKES

In the event of an earthquake, all personnel should be evacuated immediately. Once all aftershocks have subsided, the cap would be inspected immediately for damage, as described in Section 2.

3.3 INJURIES

Any injury would be reported immediately so prompt medical assistance might be rendered.

3.4 EMERGENCY PHONE NUMBERS

The phone numbers of the following emergency services will be readily available.

- Property Manager: Mr. Roland Lampert, (650) 367-0854
- Ambulance: 911
- Doctor: 911
- Fire: 911
- Police/Sheriff: 911

4.0 REPAIRS AND CORRECTIVE ACTION

4.1 ASPHALTIC CAP

Determination of the cause of cap stresses will be performed prior to efforts to remedy the distress or failure. The cause of the defect as well as the defect itself must be addressed to provide a cost-effective solution to cap maintenance. In some cases, the cause of the defect may be such that correction is not feasible at that time and only remedial measures are possible. Regardless, the cause and effect will be established and documented.

4.1.1 Repair Procedures

Procedures for correcting distresses in the asphalt cap include patching, crack and surface sealing, and in some cases resurfacing. Patching may be either a temporary or permanent repair. Crack sealing will be accomplished using emulsified or cutback asphalt, special asphalt compounds, specialty crack and joint sealers, or possibly by sealing the entire surface area. Surface treatments, with or without aggregate and thin overlays may also be used as part of the repair procedures.

4.1.1.1 CAP SPECIFICATIONS

Cap repairs should include a 6-inch layer of compacted soil base. The base material is to be compacted to 95 percent of maximum density. The base layer shall then be covered with a prime coat of liquid asphalt Grad SC-70, and overlain by 6-inches of Class B, ¾ inch maximum medium, AR-4000 grade asphalt concrete. The asphalt concrete is to be placed and compacted in two lifts of equal thickness. Each lift is to be compacted to 93 percent using the rice gravity method in accordance with ASTM Method 2041 (Section 39 of Caltrans specifications).

4.1.1.2 PATCHING

Deep patches (at least 4 inches) will be used for making permanent repairs (Asphalt Institute, 1989). The material in the area will be compacted to the depth necessary to achieve firm support, which may require moving some of the subgrade. The granular base in the hole will be primed and the hole will be backfilled with a dense-graded hot-asphalt plant mix. If the hole is more than 6 inches deep, the backfill will be placed in layers and each layer will be thoroughly compacted. Finally, a hot-mix asphalt surface layer will be compacted flush with the surrounding grade.

4.1.1.3 SURFACE PATCHING

If there are small hairline cracks, minor surface distortion or raveling, then a surface patch will be used (Asphalt Institute, 1989). Typically, this does not require excavation, and only a layer of hot-mix asphalt or a chip seal cover will be required. A sand asphalt mixture will be used. The cracked area first will be broomed or blown with high-pressure air then a tack coat will be applied. The hot mix will be spread rapidly over the tack and compacted immediately.

4.1.1.4 SEALING CRACKS

Cracks will be sealed with modified asphalts (e.g., rubber-asphalt sealer), or specially prepared crack and joint sealers (Asphalt Institute, 1989). Prior to the crack being sealed, all incompressible material will be removed by high-pressure air or routing. If grass is growing through the crack, it might be necessary to inject an approved herbicide. Modified asphalts require highly controlled handling techniques and preparation; however, they do maintain an effective seal, which should last for several years.

4.2 SITE SECURITY

The existing chain link fencing and gates surrounding the unpaved portion of the Site will be maintained. The gates are secured by a combination padlock to limit public access. O&M monitoring will include observations of the Site security and recommendations, as appropriate, to improve control of Site access.

5.0 REPORTING

An annual report will be prepared, which will include the following:

- Results of semi-annual inspections;
- Summary of repairs and maintenance work completed during reporting period; and
- Recommendations, if any, for repairs and corrective actions at the Site.

A final review report will be prepared that compiles the information collected during each year of operations and maintenance. These data will be interpreted and recommendations will be made for modifications to the O&M Plan.

6.0 REFERENCES

American Association of Cost Engineers, *AACE Recommended Practices and Standards* (AACE), 1991.

The Asphalt Institute, *The Asphalt Handbook, Manual Series No. 4 (MS-4)*, 1989 (Asphalt Institute, 1989).

7.0 DISTRIBUTION LIST

Ms. Carmen Santos (Electronic and Hard Copy)
RCRA Corrective Action Office
Waste Management Division
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. David Barr (Electronic and Hard Copy)
California Regional Water Quality Control Board
-San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Roland Lampert (Electronic Copy and Hard Copy)
899 Broadway Associates
900 Veterans Boulevard, Suite 410
Redwood City, CA 94063

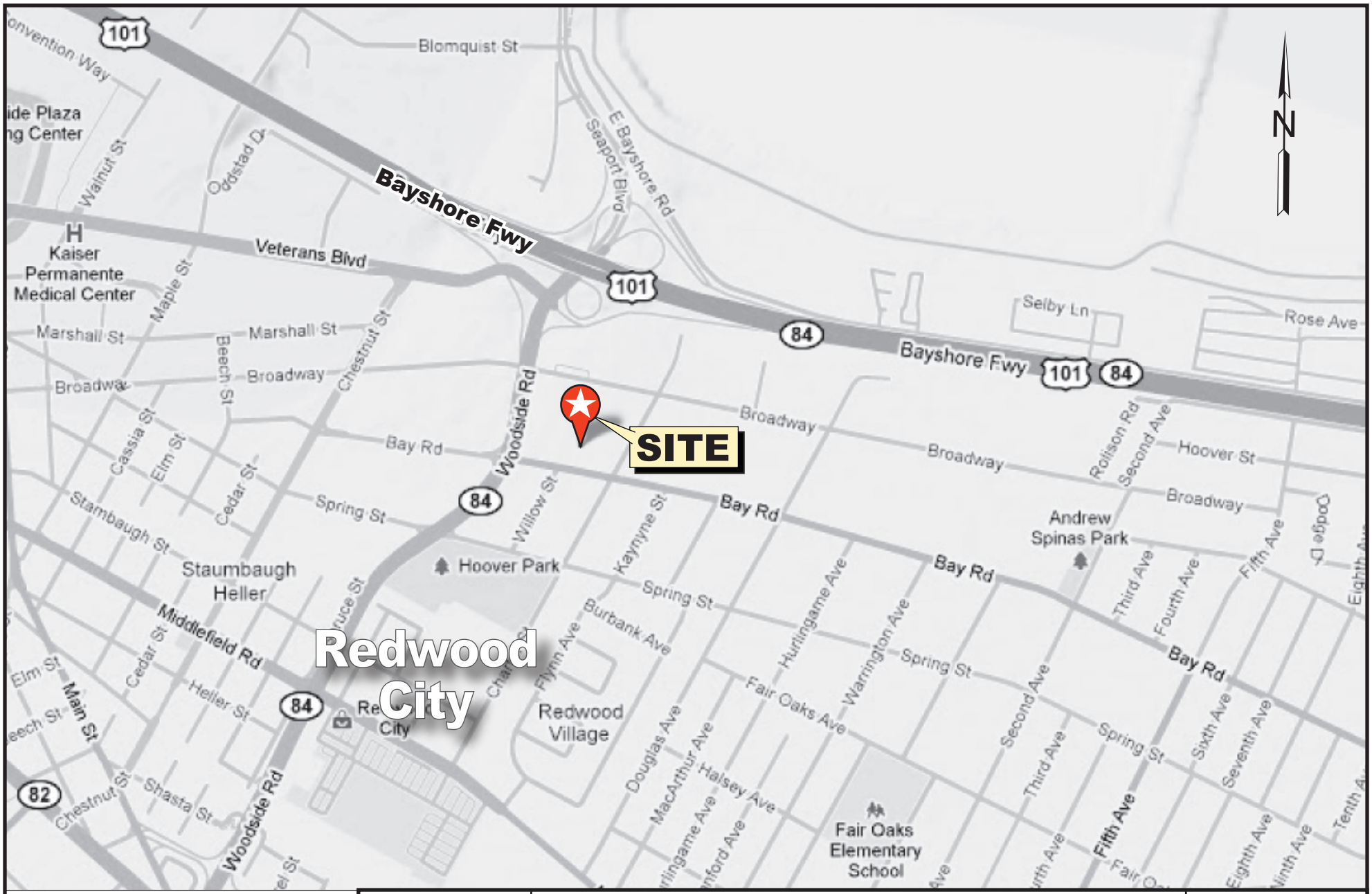


Figure 1-1	**SITE LOCATION MAP**	WEST Environmental Services & Technology
January 2015	Bay Road Railroad Property, Redwood City, California	

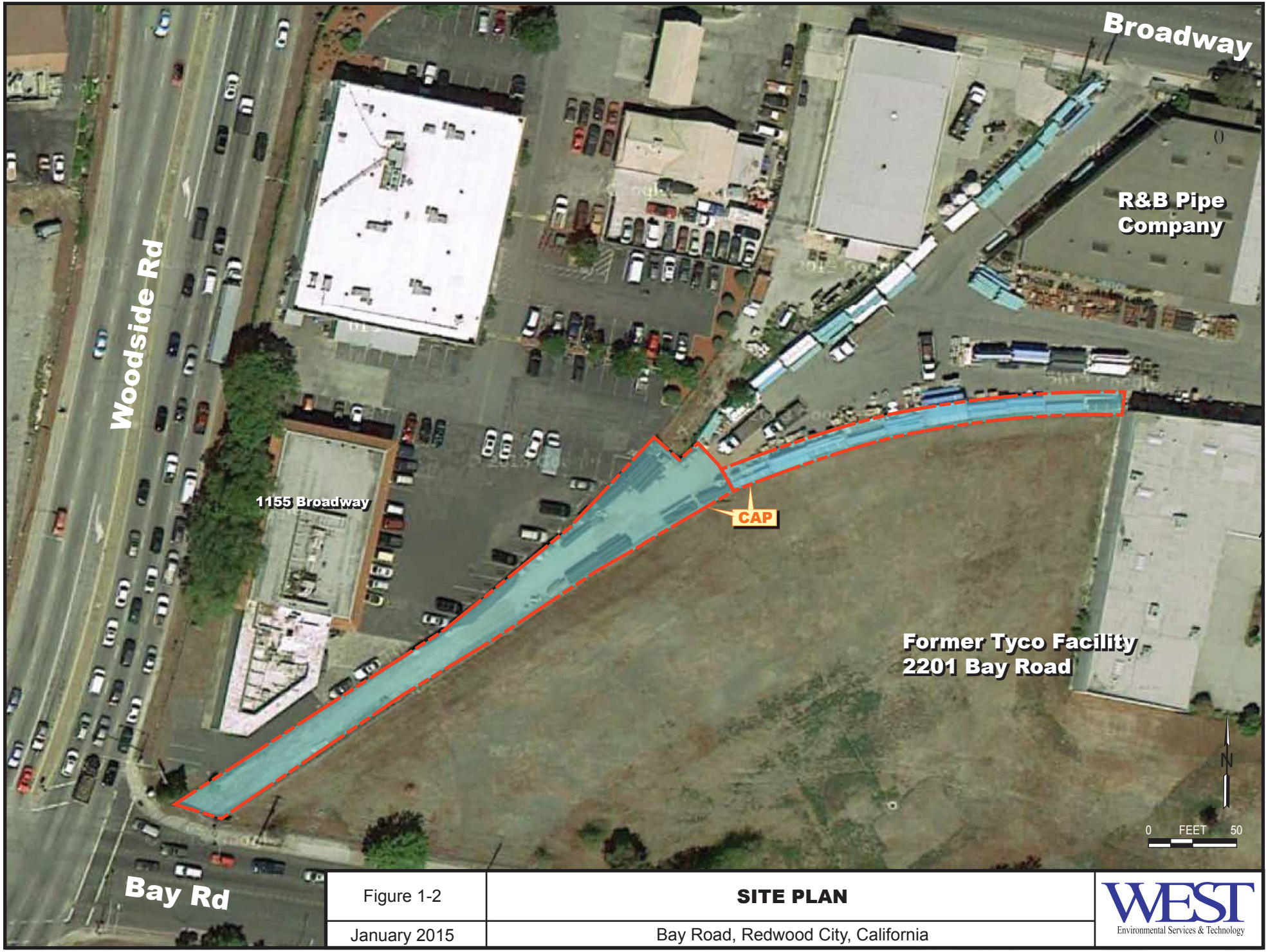


Figure 1-2	**SITE PLAN**	WEST Environmental Services & Technology
January 2015	Bay Road, Redwood City, California	

APPENDIX A

CAP INSPECTION FORM

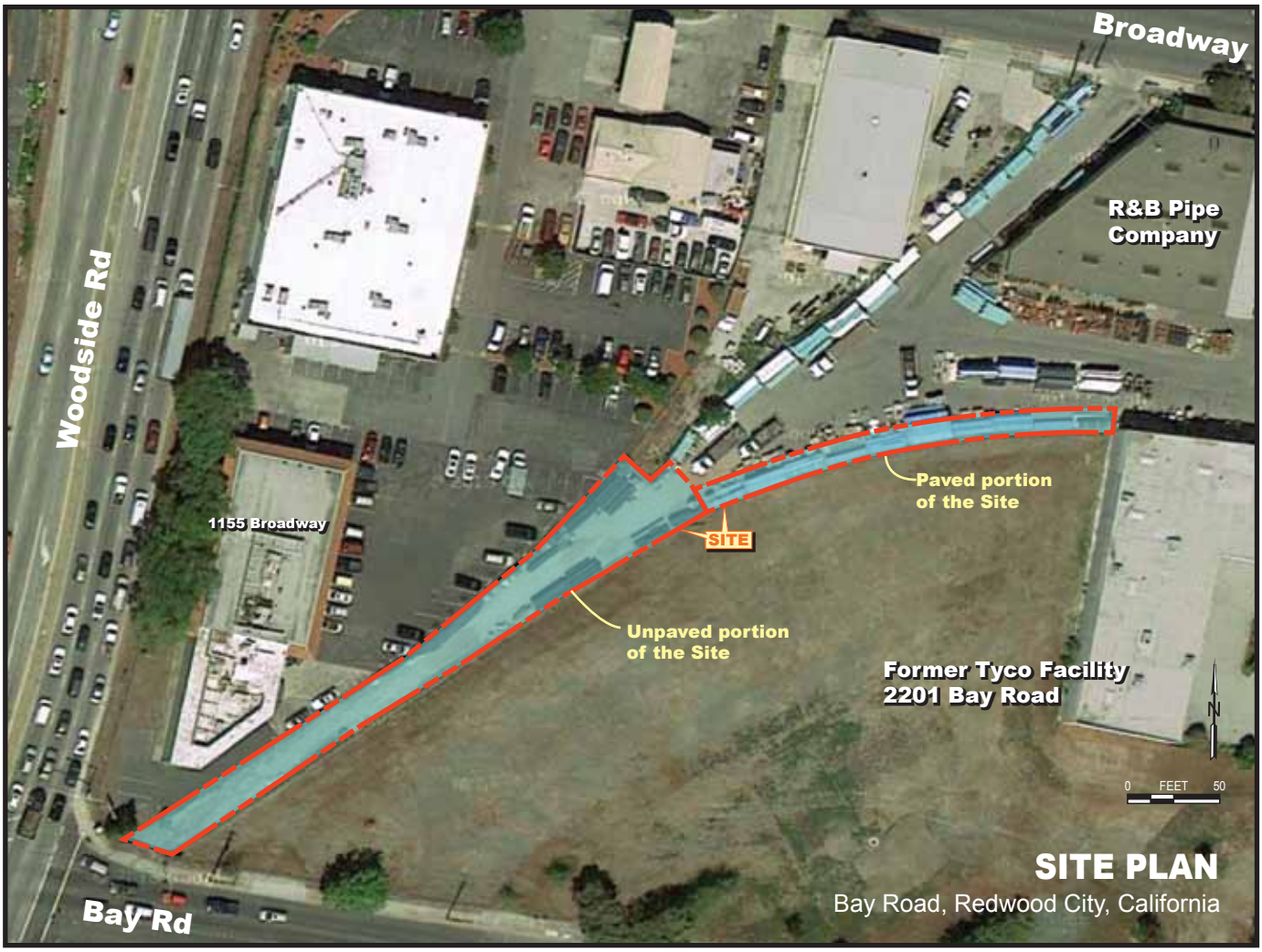
CAP INSPECTION FORM

Project Location: Former RSP Property
Redwood City, California

Date: _____

Inspected By: _____

Weather (Skies, temperature, wind): _____



Observations/Comments: _____

Observations _____

Location ID	Remarks